

Title: New NO_x Requirements in the State of Texas

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Summary

As the regulatory debate continues throughout the Eastern U.S. regarding the appropriate level of nitrogen oxide (NO_x) reductions to adequately mitigate the formation and transport of ozone, the state of Texas has aggressively pushed forward with new NO_x requirements. The combination of new electricity restructuring legislation and existing Clean Air Act mandates has resulted in a series of new NO_x control requirements scheduled for implementation in Texas around 2003.

On June 18, 1999, Governor Bush signed restructuring legislation, SB 7. The bill requires retail competition to begin in Texas by January 2002. This bill also requires reductions of NO_x and SO₂ emissions from "grandfathered" power plants over a 2-year period. Grandfathered plants are defined as facilities that were operating prior to the beginning of the Texas New Source Review (NSR) Permitting program and were, therefore, exempt from meeting tighter emission standards generally applied to new facilities. The bill calls for a 50% reduction of NO_x emissions below 1997 levels from the grandfathered plants. This goal is being implemented by constructing three separate NO_x control areas within the state of Texas and equates to a 0.14 lb./mmBtu emission rate for the East Texas Region and a 0.195 lb./mmBtu emission rate for the El Paso and West Texas Regions. The program will impact 187 generating units at 75 different fossil fuel-fired plants. However, only 2 of the grandfathered plants (4 units) are coal-fired.

The Texas Natural Resource Conservation Commission (TNRCC) is implementing the SB7 requirements through 3 separate NO_x allowance markets, one for each control area. The program will begin in May 2003 and will require annual reductions of NO_x in contrast to the seasonal programs in the Eastern U.S. Sources currently holding Texas NSR permits and newly constructed sources are not subject to the requirements but may elect to voluntarily join the program. These sources choosing to "opt-in" must submit requests to the TNRCC by September 1, 2000.

In addition to SB7 requirements, Texas has also moved forward with additional regulations impacting non-grandfathered plants as a part of the state's ozone mitigation strategies. These regulations are necessary in order for the state of Texas to comply with existing Clean Air Act mandates requiring the development and implementation of comprehensive ozone attainment plans. On April 19, 2000, the state finalized NO_x requirements as a part of the Beaumont-Port Arthur and Dallas-Fort Worth ozone attainment plans. The programs will require a nearly 90% reduction in NO_x emissions from most of the state's coal-fired plants. Gas-fired boilers, process heaters, and turbines are also covered under these regulations with limits ranging from 0.08 to 0.15 lb./mmBtu. The start dates for these requirements will be staggered from 2002 through 2005. The state will also be adopting additional requirements to address the Houston non-attainment area. The Houston plan is due to EPA by December 2000. Although the TNRCC recently adopted many of these new NO_x emission limitations for the ozone attainment plans, the state is still drafting the regulatory structure for implementing the requirements. The state has committed to providing compliance options through emissions trading or emissions averaging programs and is continuing to work with stakeholders to finalize their structure.

In addition to the specific trading mechanisms that the state adopts, the new Texas requirements provide two interesting differences in comparison to the Eastern NO_x programs. All of the Texas limitations are annual requirements unlike the May through September compliance period in the East. The difference in compliance length changes the cost structure for NO_x controls by increasing the operational and maintenance (O&M) expenses and lowering the capital costs associated with each ton of NO_x removed. The second key difference is the mix of generation in Texas. Coal provides just over 20% of the electricity generation in the Electric Reliability Council of Texas (ERCOT). This is almost a complete reversal to the NO_x SIP call states where coal provides approximately 72% of the fossil-fueled capacity¹. Both of these factors will provide new challenges compared to many of the other NO_x programs under development throughout the country.

¹ EPA: “Regulatory Impact Analysis for the NO_x SIP Call, FIP, and Section 126 Petitions”, September 1998.